

# AIRS Next Generation Plan

*Presented to the Statewide Interoperability Executive Committee*

**Justin Turner**

Deputy Statewide Interoperability Coordinator

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Public Safety Interoperable  
Communications Office

# Overview

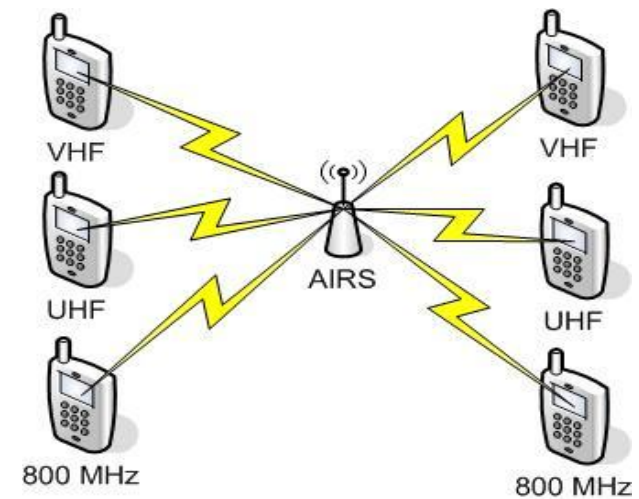


- AIRS Overview
- History
- Current Status of AIRS
- 2011 Coverage Gap Analysis
- Future Expansion Process
- Discussion

# AIRS Overview



- AIRS is a suite of full-time, cross-banded (i.e. VHF, UHF, and 800 MHz\*) mutual aid channels designated specifically for multi-agency use across the State of Arizona.
- A limited interoperability solution
  - Single Frequency Channel
  - Regionalized PL Assignments
- Covers a vast majority of the state
- Usage Requires a signed MOU with DPS



\* 700 MHz radios can be programmed to access AIRS 800MHz frequencies.

# History



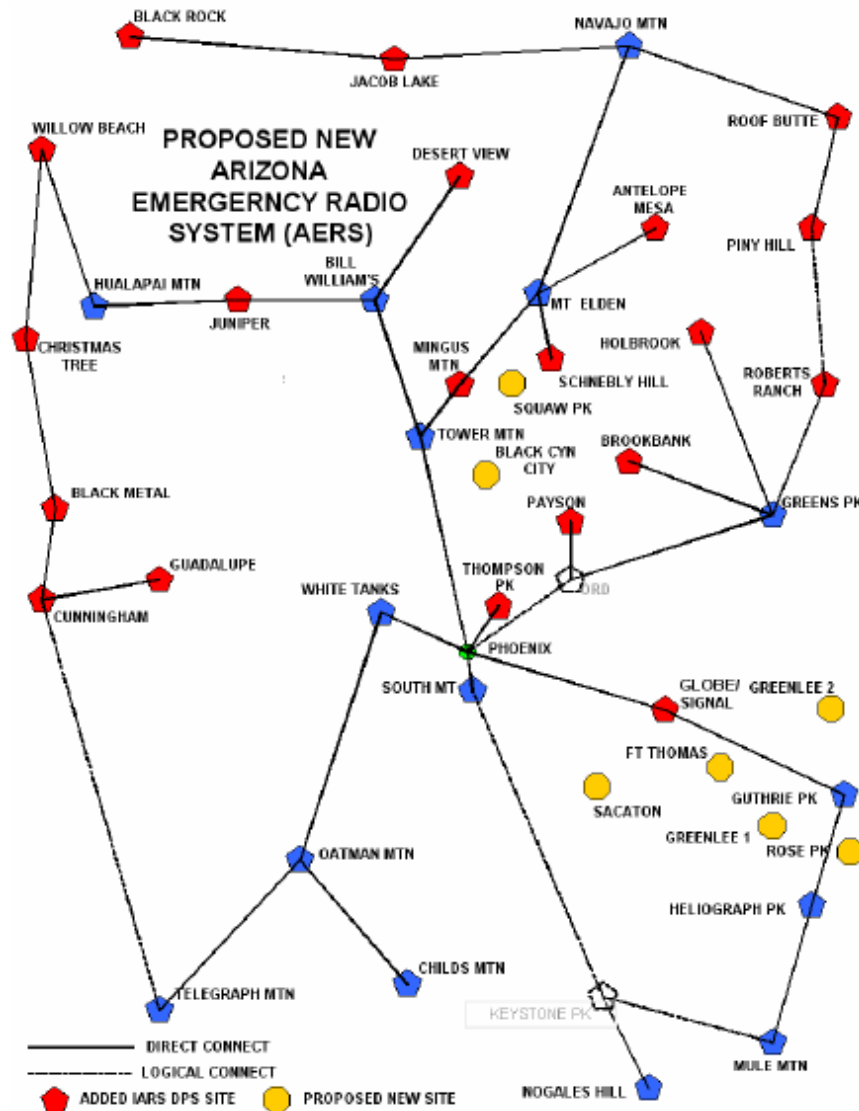
- Mid – Late 1980s: Interagency Arizona Radio System (IARS)
  - Utilized the National Police Emergency Channel
  - VHF & UHF Base Stations at 15 key locations
  - Each radio controlled at a Dispatch Center
  - Link allowed DPS to talk to VHF Users
  - Funded by Arizona Association of Public Safety Communications Officials International, Inc. (APCO)

## History, cont.



- 2004–2005 ADEM sponsored a multi-county Interoperability Project to identify interoperability issues in each county and provide near-term, low cost solutions.
- 2005: RCC Consultants produced a Radio Interoperability report and presented it to the PSCC and SIEC.
- The report called for the general expansion of the IARS network and the integration of the Fire Mutual Aid channels to form a new, agency-neutral statewide radio network: Arizona Emergency Radio System (AERS)
  - Expanded the intent of the network to multi-discipline
  - Added 800 MHz, fire and mutual aid statewide
  - Interconnected existing IARS sites and proposed 26 new sites using DPS microwave backbone to create the new AERS statewide network

# Proposed AERS System



# Arizona Interagency Radio System (AIRS)



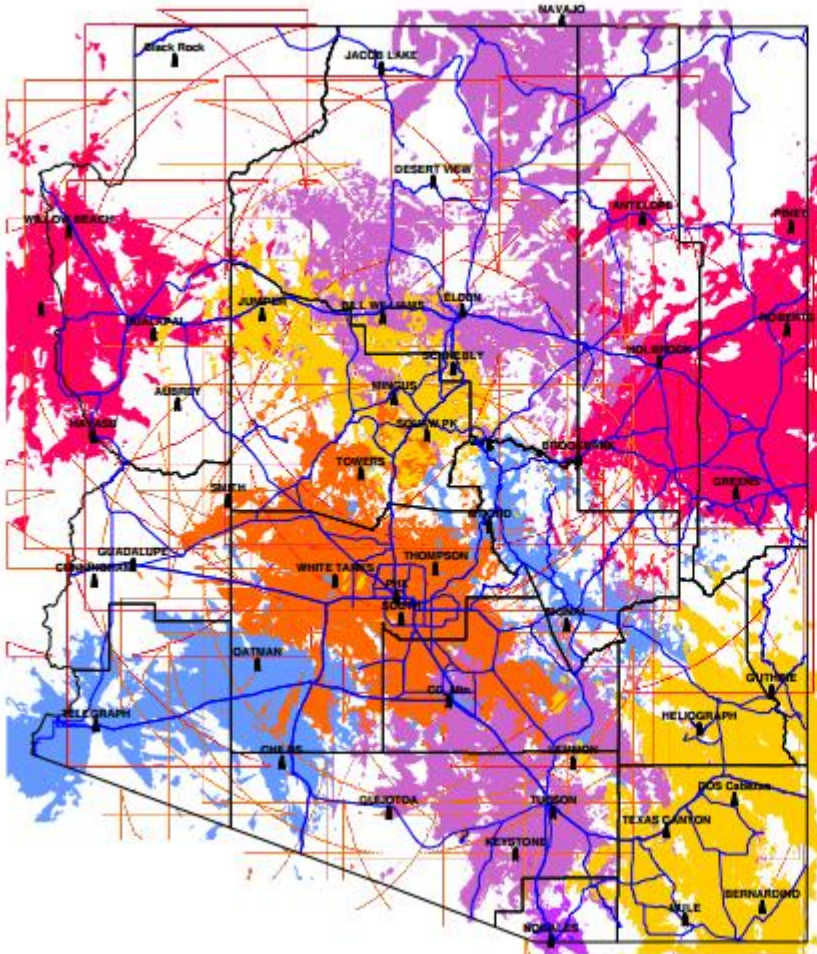
- Following the installation of the Long Mesa and Jacob Lake, the AIRS build-out is complete:
  - 35 Sites provide coverage to all 15 counties
  - Semi-permanent fly-away suite located in Havasupai
  - 3 Mobile Suites
    - » 1 DPS Communications Trailer
    - » 2 DPS Fly-Away
  - State EOC connected to AIRS via Microwave Link
- Governance of the system has been formalized:
  - Agencies wishing to operate on AIRS must sign a [Memorandum of Understanding \(MOU\)](#) with the Department of Public Safety (DPS) which holds the licenses for AIRS frequencies
  - [AIRS Standard Operating Procedures](#) Developed: Arizona Interagency Radio System (AIRS) State Plan - Standard Operating Procedures and National Interoperability Shared Channels
- AIRS Training Program Developed including a [Video](#), [Presentation](#), and [Lesson Plan](#).



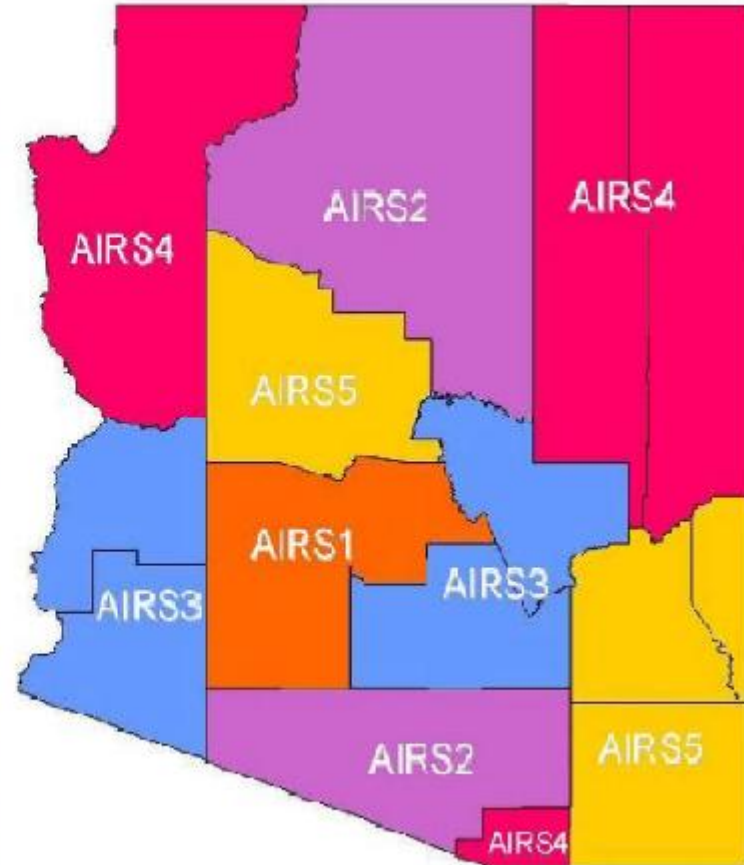
# Current AIRS Status



**AIRS REGIONAL RADIO COVERAGE**



**AIRS REGIONAL PRIMARY CHANNEL ASSIGNMENTS**





# 2011 Coverage Analysis



- Through a Technical Assistance offering from the DHS OEC Interoperable Communications Technical Assistance Program (ICTAP), a Radio Frequency Drive Test was conducted over 10 days, between Dec 5 -16, 2011.
- The testing took place along the State's major highways: A team with a specially outfitted vehicle started in Yuma and traversed the State along a pre-designated route.
- Overall the findings closely align with the existing computer modeled coverage maps generated by DPS.
- PSIC has posted the Google Earth files for all AIRS Regions and users can select which region/bandwidth will be of interest to them.

# Proposed Expansion Process



- In cooperation with the SIEC and DPS, PSIC will produce a procedure to allow jurisdictions to expand AIRS in their community.
- Approval of SIEC and DPS will be required.
- It will be the responsibility of individual jurisdictions to analyze coverage gaps and determine needed coverage. The Google Earth maps may be utilized for this purpose.
- Equipment will be purchased, owned and maintained by the local jurisdiction.

# AIRS Expansion Procedure



- Procedure will document:
  - Technical Design
  - Equipment Requirements
    - » Suite Equipment, power needs, site access requirements, connection to DPS, etc...
  - Funding recommendations, including involvement of RAC stakeholders and template language for grant applications
  - Approval Authorities: SIEC and DPS
- Draft Procedure to be developed by Technical workgroup and presented to SIEC in August.



**Further Discussion; Questions?**

**Thank You!**

Justin Turner – [Justin.Turner@azdoa.gov](mailto:Justin.Turner@azdoa.gov)